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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,810	08/25/2003	Thilo Schmidt	ZAHFRI P531US	2360
20210	7590	09/29/2004	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			LE, DAVID D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/647,810	Applicant(s) SCHMIDT ET AL.	
	Examiner David D. Le	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 18-22, 24, and 26-29 is/are rejected.
- 7) ☒ Claim(s) 17, 23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/647,810, filed on 25 August 2003. Claims 15-29 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 11/17/03
 - Foreign Priority Document, received on 08/25/03

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the powershift transmission must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement

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Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it has exceeded 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Objections

6. Claim 28 is objected to because of the following informalities: Claim 28, line 10 recites “specially of a powershift transmission”. This recitation appears to be a typographical error. For the purpose of applying the following art rejections, examiner does not treat this limitation as part of claim 28. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 15, 16, 18-22, 24, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,305,862 to Gierer (Gierer’862) in view of U. S. Patent No. 5,103,930 to Gierer (Gierer’930).**

Claims 15, 16, 18-22, 24, and 26-19:

Gierer’862 (Fig. 1; column 2, line 64 – column 5, line 17) discloses a control device for a frictionally engaging clutch (7) of a powershift transmission (6) comprising:

- A clutch piston (being the axially displaceable coupling element 8) having a first hydraulically pressurizable clutch space (10) and a second hydraulically pressurizable reset space (11);
- A first clutch valve (15) associated with the clutch space (10);

- A second clutch valve (16) associated with the reset space (11);
- A control unit (19);
- A pressure adjuster (17);
- Wherein the pressure in the reset space (11), after reaching the pre-determined pressure-adjuster control pressure, is reduced by the second clutch valve (16) and the pressure in the clutch space (10) is further increased by the first clutch valve (15) (column 4, line 9 – column 5, line 17);
- Wherein the first clutch valve (15) is a proportional pressure-reducing valve and the second clutch valve (16) is an inverse-proportional pressure-reducing valve with pressure-adjuster control pressure shared with the first clutch valve (i.e., column 3, lines 24-58);
- Wherein the first clutch valve (15) has a valve piston (24) with several sections (being elements 24a, 24b, and 24c) which define a first valve space (22), a second valve space (being the opposite end of valve space (22) equipped with a spring (25), and a third valve space (being the area provided by element 26b connected to pressure line (27); and
- Wherein the second clutch valve (16) has a valve piston (30) with several piston sections (being elements 30a, 30b, and 30c) which define a first valve space (23), a second valve space (being the opposite end of valve space (23) equipped with a spring (31), and a third valve space (being the area provided by element 32c connected to pressure line (33)).

Gierer'862 lacks:

- A first holding valve associated with the clutch space;
- A second holding valve associated with the reset space;
- Wherein the second holding valve is an inverse proportional pressure-reducing valve; and
- Wherein a pressure-adjuster control pressure is supplied as a control pressure to the holding valve associated with the reset space.

Gierer'930 (Fig. 1; column 3, line 24 – column 5, line 9), on the other hand, teaches a device for electro hydraulically actuating a clutch of a transmission comprising:

- A pressure control valve (11);
- A clutch valve (13);
- A safety valve (6), which serves the functions of the claimed holding valve; and
- Wherein the pressure control valve (11) supplies a control pressure to the safety valve and the clutch valve.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify *Gierer'862* to include a holding valve for each of the clutch valve, in view of *Gierer'930*, in order to prevent an inadvertent change in the system pressure during clutch operations.

Allowable Subject Matter

9. Claims 17, 23, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Muller et al. (U. S. Patent No. 4,420,994) teaches a hydraulic regulating device comprising a plurality of shift valves and holding valves, as shown in Fig. 1
- Taga et al. (U. S. Patent No. 4,660,693) teaches a hydraulic pressure control apparatus comprising a plurality of shift valves and holding valve, as shown in Fig. 6.
- European Patent Application No. 0 405 590 A2 teaches a hydraulic controller for an automatic transmission as shown in Fig. 1.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ddl

 9/27/04
CHARLES A. MARMOR
SUPERVISORY PATENT EXAMINER
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